

POWERGEAR HIGHSPEED DATA SHEET

S-90



L Series

KL Series

H Series

KH Series

Specifications:

Ratio:	1:1	1.5:1	2:1
Nominal output torque:	45 Nm	45 Nm	42 Nm
Acceleration torque:	68 Nm	68 Nm	63 Nm
Emergency torque:	90 Nm	90 Nm	84 Nm
Input speed:	3000 rpm	3500 rpm	3500 rpm
Max input speed (Special measures on request)	8500 rpm	8500 rpm	8500 rpm
Standard output backlash:	≤ 15 arcmin	≤ 15 arcmin	≤ 15 arcmin
Reduced output backlash:	≤ 9 arcmin	≤ 9 arcmin	≤ 9 arcmin
Permissible radial load*: (Output)	1100 N	1100 N	1100 N
Permissible radial load*: (Input)	900 N	900 N	900 N
Permissible axial load*: (Output)	550 N	550 N	550 N
Permissible axial load*: (Input)	450 N	450 N	450 N
Efficiency at max load:	>98%	>98%	>98%
Running noise at 1500rpm, partial load	≤ 70db(A)	≤ 70db(A)	≤ 70db(A)
Weight:	4.5 kg	4.5 kg	4.5 kg
Service life:	>15,000h	>15,000h	>15,000h
Oil quantity:	0.2 litres	0.2 litres	0.2 litres
Operating temperature:	-30°C to 100°C	-30°C to 100°C	-30°C to 100°C
Mass moments of inertia related to input for shaft arrangement 13:	1.33 kg/cm ²	0.95 kg/cm ²	0.77 kg/cm ²

*At centre of shaft

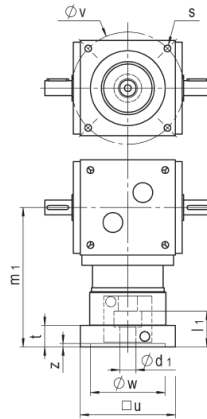
Order code:

S-	90-	2-	3-	4-	5-	6-	7
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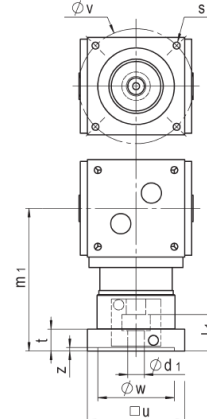
2:	Version:	L = solid shaft version; KL = solid shaft version with input flange H = hollow shaft version; KH = hollow shaft version with input flange
3:	Ratio:	1:1; 1.5:1; 2:1
4:	Shaft arrangement:	WA 1; WA 3; WA 13
5:	Mounting position:	MP1; MP2; MP3; MP4; MP5; MP6
6:	Input speed:	Up to 8500 min ⁻¹
7:	Special requirements:	As specified

Dimensions

a:	90mm
b dia:	88mmh7
c dia:	86mm
d1 dia:	16mmk6
l1:	30mm
d2 dia:	16mmk6
d3 dia:	14mmH7
l2:	30mm
l3:	49mm
l4:	30mm
e:	45mm
f1:	130mm
f2:	87mm
g1:	15mm
g2:	10mm
h:	55mm
k:	M6x12mm
m1:	100mm
m2:	57mm
n1:	2mm
n2:	2mm
p:	36mm
r1:	M5
r2:	M5
s:	4x M5x12
t:	8mm
u dia:	87mmg6
v dia:	76mm
Key d1:	5x5x25mm
Key d2:	5x5x25mm
Z:	6mm

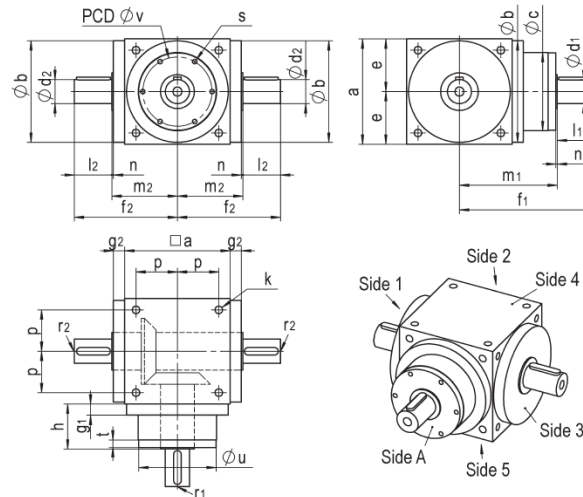


Design KL

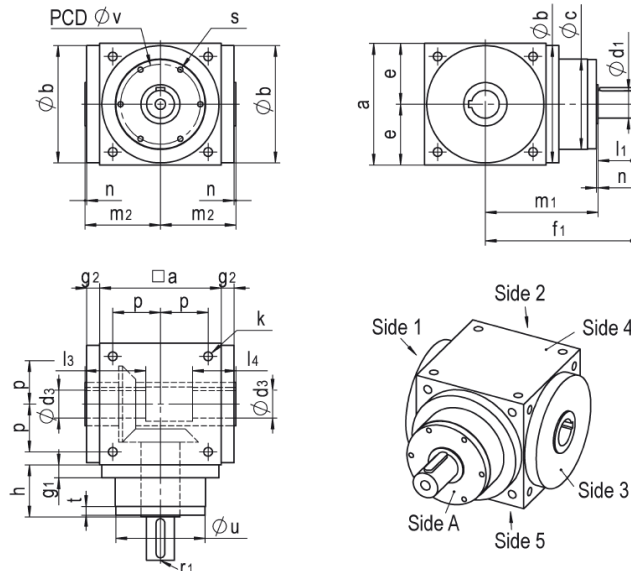


Design KH

Configuration L

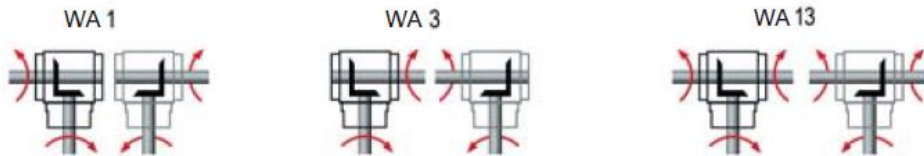


Configuration H



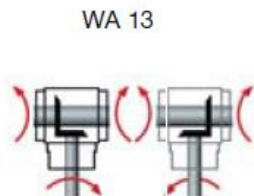
Shaft arrangements L:

always right view = mirrored illustration

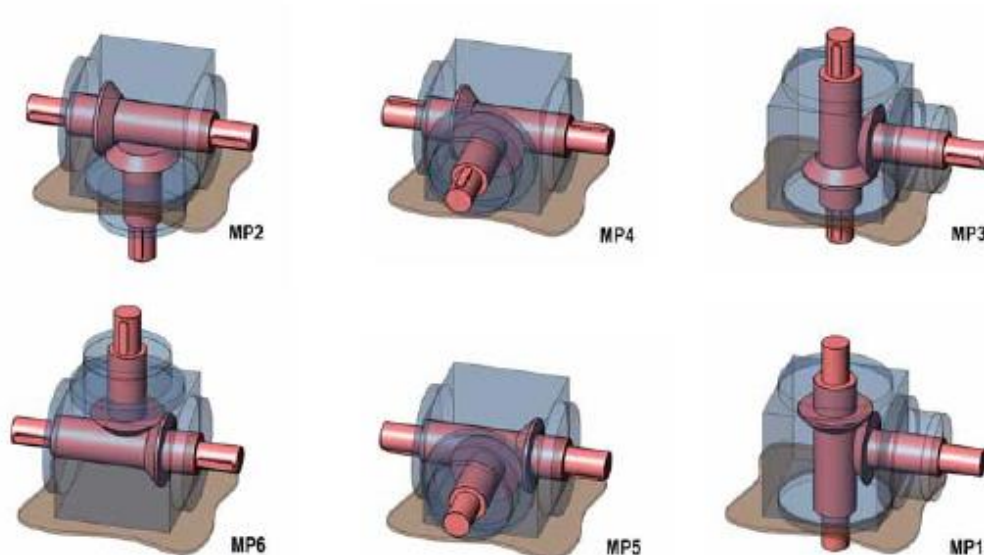


Shaft arrangements H:

right view = mirrored illustration



Mounting positions:



For full specifications, see Power Gear catalogue.

Size	Variant	Ød1	l1	□u	Øv	Øw ^{F7}	s	m ₁	t	z
S90	V1	11	26	90	75	60	M5	166.5	25	5
	V2	14	30	90	75	60	M5	166.5	25	5
	V3	14	30	90	95	70	M6	166.5	25	5
	V4	14	30	90	100	80	M6	166.5	25	5
	V5	19	40	90	95	70	M6	166.5	25	5
	V6	19	40	90	100	80	M6	166.5	25	5
	V7	19	40	115	130	95	M8	166.5	25	5
	V8	19	40	115	115	95	M8	166.5	25	5
	V9	24	50	115	130	110	M8	173	31.5	5
S110	V1	14	30	110	95	80	M6	184.5	26	5
	V2	14	30	110	100	80	M6	184.5	26	5
	V3	19	40	110	100	80	M6	184.5	26	5
	V4	19	40	115	115	95	M8	188	29.5	5
	V5	19	40	115	130	95	M8	188	29.5	5
	V6	19	40	115	130	110	M8	190	31.5	5
	V7	24	50	115	130	110	M8	190	31.5	5
	V8	24	50	140	165	110	M10	190	31.5	5
	V9	24	50	140	165	130	M10	205	21.5	5
	V10	32	60	140	165	130	M10	205	21.5	5
S140	V1	19	40	115	115	95	M8	203	29.5	5
	V2	19	40	115	130	95	M8	203	29.5	5
	V3	24	50	115	130	110	M8	205	31.5	5
	V4	24	50	140	165	110	M10	205	31.5	5
	V5	24	50	140	165	130	M10	220	21.5	5
	V6	32	60	140	165	130	M10	220	21.5	5
	V7	32	60	190	215	130	M12	221	22.5	6
	V8	32	60	190	215	180	M12	235	36.5	6
	V9	38	80	190	215	180	M12	235	36.5	6
S170	V1	24	50	140	165	110	M10	241	28.5	5
	V2	24	50	140	165	130	M10	244	31.5	5
	V3	32	60	140	165	130	M10	244	31.5	5
	V4	32	60	190	215	130	M12	262.5	26.5	6
	V5	32	60	190	215	180	M12	264	28	6
	V6	38	80	190	215	180	M12	264	28	6